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IN - HUH H J

PA - (SMSU ) SAMSUNG DENKAN KK

- (SMSU ) SAMSUNG SDI CO LTD

PN - KR2000051958 A 20000816 DW200121 G02F1/1335 000pp

- JP2000221544 A 20000811 DW200052 G02F1/139 004pp

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XIC - G02F-001/1335 ; G02F-001/139 ; G09F-009/00 ; G09F-009/30

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AB - JP2000221544 NOVELTY - A set of polarizing plates (23,24) are configured at front and back sides of liquid crystal display unit (31) filled with liquid crystal. A backlight source (30) is provided to the back side of polarizing plate (24). An LC reflecting unit (25) filled with cholesteric liquid crystal is provided between the polarizing plate (24) and backlight source and forms electrode between opposing boards (21,22).

- DETAILED DESCRIPTION - The cholesteric liquid crystal is provided between opposing boards (21,22) to form electrode of predefined form on its inner surface. The cholesteric liquid crystal filled in reflecting unit (25) has specific pitch to reflect or transmit light of specific wavelength based on whether voltage is impressed to electrode of reflecting unit. Voltage application to backlight source is interlocked when voltage is impressed to the reflecting unit.

- USE - Supertwisted nematic active matrix liquid crystal display device.

- ADVANTAGE - Increases optical utilization efficiency as light lost with polarizing plate is reflected through reflecting unit during utilization of external light, thus obtaining bright display screen.

- DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of LCD device.

- Opposing boards 21,22

- Polarizing plates 23,24

- LC reflecting unit 25

- Backlight source 30

- Liquid crystal display unit 31

- (Dwg.2/2)

IW - NEMATIC ACTIVE MATRIX LIQUID CRYSTAL DISPLAY DEVICE LIQUID CRYSTAL REFLECT UNIT FILLED CHOLESTERIC LIQUID CRYSTAL PLATE SOURCE

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INW - HUH H J

NC - 002

OPD - 1999-01-28

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PAW - (SMSU ) SAMSUNG DENKAN KK

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TI - Supertwisted nematic active matrix liquid crystal display device, has liquid crystal reflecting unit filled with cholesteric liquid crystal, provided between polarizing plate and backlight source